Accommodations Toolkit

Math Charts/Tables: States' Accessibility Policies, 2023

This summary of states' accessibility policies for **math charts/tables** is part of the *Accommodations Toolkit* published by the National Center on Educational Outcomes (NCEO).[1] The toolkit also contains a summary of the research literature on math charts/tables (/nceo/accommodations-toolkit/math-charts-tables-research).

Accessibility policies often have several tiers of accessibility features: universal features, designated features, and accommodations.[2] Figure 1 summarizes how states included math charts/tables in their accessibility policies for students with disabilities in 2023. Figure 2 summarizes how states included math charts/tables in their accessibility policies for English learners in 2023. Table 1 shows how math charts/tables was included in the policies, while Table 2 contains additional details and specifications.

Figure 1. States' Accessibility Policies for Students with Disabilities for Math Charts/Tables, 2023

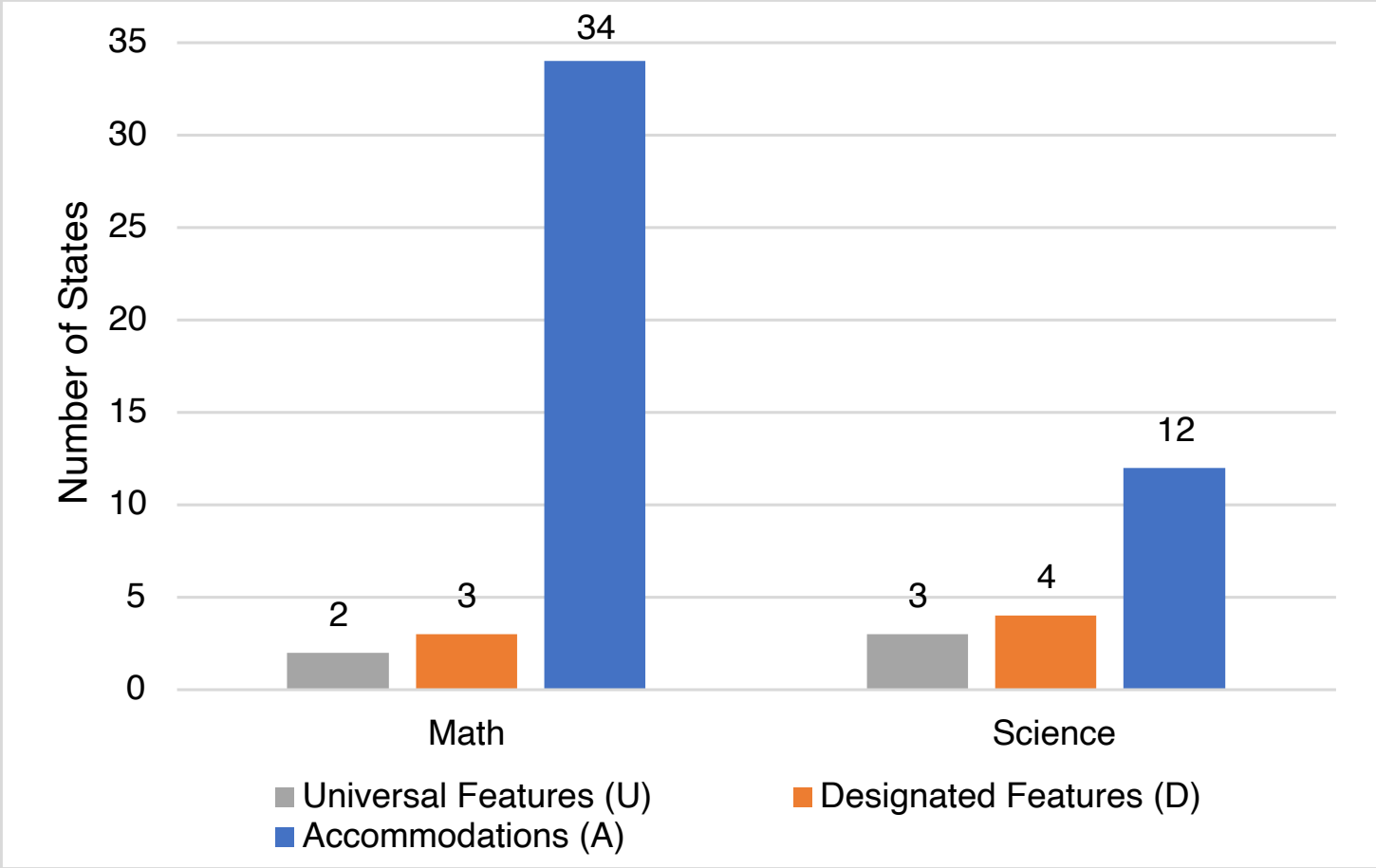

Figure 2. States' Accessibility Policies for English Learners for Math Charts/Tables, 2023

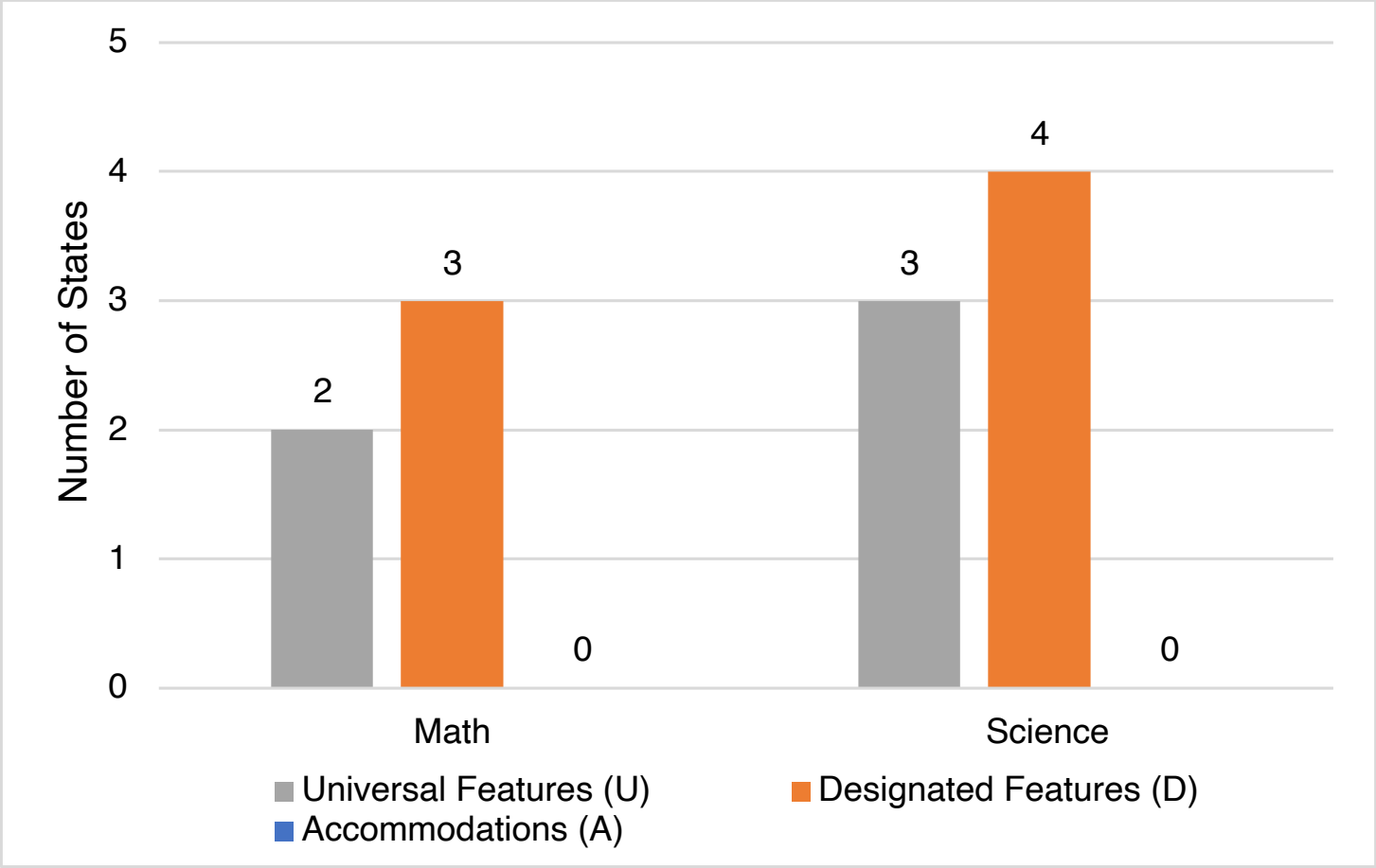

Table 1. Accommodations Policies for Math Charts/Tables by State, 2023

U = Universal Feature, D = Designated Feature, A = Accommodation, ELA = English Language Arts, X = Allowed, SD = Prohibited, Blank cell = no policy found, N = Notes in Table 2

State	Math			Science	
	U	D	A	U	
Alabama					
Alaska			SD		
Arizona					
Arkansas					
California			SD		
Colorado			SD		
Connecticut			SD		
Delaware			SD		
District of Columbia			SD		

Florida	P	P	P	P	
Georgia					
Hawaii			SD		
Idaho			SD		
Illinois			SD		
Indiana			SD		
Iowa			SD		
Kansas					
Kentucky					
Louisiana			SD		
Maine		X			
Maryland			SD		
Massachusetts					
Michigan			SD		

Minnesota	X		SD	X	
Mississippi					
Missouri			SD		
Montana			SD		
Nebraska			SD		
Nevada			SD		
New Hampshire			SD		
New Jersey			SD		
New Mexico					
New York					
North Carolina					
North Dakota			SD		
Ohio		X	SD		

Oklahoma			SD		
Oregon			SD		X
Pennsylvania			SD		
Rhode Island			SD	X	
South Carolina					
South Dakota			SD		
Tennessee					
Texas		X			X
Utah	X		SD	X	
Vermont			SD		
Virginia			SD		
Washington			SD		
West Virginia			SD		

Wisconsin			SD		
Wyoming					
Total (Students with Disabilities)	2	3	34	3	
Total (English Learners)	2	3	0	3	

Table 2. Details and Specifications: States' Math Tables Accessibility Policies

State	Details/Specifications
Alaska	**Accommodation (Math):** Math manipulatives: Student use of physical objects for math items. Multiplication tables and number lines may be used on select sections of the math assessment where calculators are allowed. See Assessment Calculator Policy. See the Handbook for the Participation Guidelines for list of additional allowable and non-allowable math manipulatives.
California	**Designated Feature (Science):** 100s number table: A student at any tested grade level can use the Smarter Balanced paper-based 100s number table for reference. This table, which lists numbers from 1–100, is available at https://www.caaspp.org/rsc/pdfs/CAASPP.hundreds-number-table.pdf (https://www.caaspp.org/rsc/pdfs/CAASPP.hundreds-number-table.pdf) Multiplication table: A student at any tested grade level can use the paper-based multiplication table (1–12) for reference. This is available from Smarter Balanced at https://www.caaspp.org/rsc/pdfs/CAASPP.multiplication-table.pdf (https://www.caaspp.org/rsc/pdfs/CAASPP.multiplication-table.pdf) **Accommodation (Math):** 100s number table: A student at any tested grade level can use the Smarter Balanced paper-based 100s number table for reference. This table, which lists numbers from 1–100, is available at https://www.caaspp.org/rsc/pdfs/ CAASPP.hundreds-number-table.pdf (https://www.caaspp.org/rsc/pdfs/CAASPP.hundreds-number-table.pdf). Multiplication table: A student at any tested grade level can use a paper-based multiplication table (1–12) for reference. This is available from Smarter Balanced at https://www.caaspp.org/rsc/pdfs/ CAASPP.multiplication-table.pdf (https://www.caaspp.org/rsc/pdfs/CAASPP.multiplication-table.pdf).

Colorado	**Accommodation (Math):** Calculator on Non-calculator Sections for Math: Calculator on non-calculator sections of math [must] be documented on IEP or 504 plan and only available to students who meet the unique accommodation criteria and are approved by the CDE Assessment Division. Refer to Guidance Document for a Calculation Device on Non-calculator Sections for the CMAS Math Assessment at http://www.cde.state.co.us/assessment/training-accommodations. The Calculation Device and Math Charts and Counters on Non-Calculator Sections accommodation may be available to a limited number of students with a disability which significantly limits or prevents the student from performing basic calculations. Students must have this accommodation on their IEP or 504 plan for instructional and assessment purposes. Only a very limited number of students who meet specific guidance criteria may use the accommodation on the CMAS Mathematics assessment and receive a valid score. Math tools, including 100s charts, two-color chips, arithmetic tables, one-to-one counters or counting chips, square tiles, Base 10 blocks are approved at the district level. Number lines are not allowed.
Connecticut	**Accommodation (Math):** 100s Number Table (Math Grades 3-8): A paper-based table listing numbers from 1-100 is available from Smarter Balanced for reference. Students with math related disabilities, visual processing, or spatial perception needs, may find this beneficial, as documented in their IEP or 504 Plan. Multiplication Table (Math Grades 3-8): A paper-based (digits 1-12) Multiplication Table is available for students in Grades 3- 8 for the Smarter Balanced Mathematics Assessment. This tool may be used for reference by students with an IEP or 504 Plan to document the need for this accommodation. These students typically demonstrate a persistent calculation disability (i.e., dyscalculia).
Delaware	**Accommodation:** 100s Number Table: A paper-based table listing numbers from 1–100 available from DeSSA for reference. Students with visual processing or spatial perception needs may find this beneficial, as documented in their IEP or 504 plan. See Appendix A-11. **Accommodation (Math):** Multiplication Table (DeSSA Math): A paper-based multiplication table containing numbers 1–12 is available from Smarter Balanced for reference – See Appendix A-11. For students with a documented and persistent calculation disability (i.e., dyscalculia).

District of Columbia	**Accommodation (Math):** Calculation Device and Mathematics Tools (on Non-Calculator Sections of Mathematics Assessments): Before Testing: • Purpose: The purpose of the calculation device on the non-calculator sections accommodation is to provide access for students with a disability that severely limits or prevents their ability to perform basic calculations (i.e., student is unable to perform single-digit addition, subtraction, multiplication, or division). For these students, a calculation device may be used on the non-calculator AND calculator sections of the mathematics assessments. The IEP or 504 plan must specify which device(s) or manipulatives. • Identification for SR/PNP: Student's SR/PNP must have Calculation Device and Mathematics Tools on non-calculator sections selected. Manipulatives may require state assessment office approval, depending on state policies. • Materials: ◦ Hand-held calculator. ◦ Allowable calculators for the calculator accommodation on non-calculator sections: ▪ Grades 3-7: Four-Function with square root and percentage functions. ▪ Grade 8: Scientific calculators (Student may also bring a four-function with square root and percentage functions in addition to grade-level calculator). ▪ High School: Graphing calculators with functionalities consistent with TI-84 or similar models. (Student may also bring a scientific calculator or a four-function with square root and percentage functions). ◦ Allowable mathematics tools include: ▪ Arithmetic tables (e.g., addition charts, subtraction charts, multiplication charts, division charts). ▪ Two-color chips (e.g., single-sided or double-sided). ▪ Counters and counting chips. ▪ Square tiles. ▪ Base 10 blocks. ▪ 100s chart. ◦ A student with a visual impairment may need other mathematics tools, such as a large print ruler (embedded PARCC ruler is designed in 18-point font), braille ruler, tactile compass, or braille protractor. Note that braille mathematics kits will include the appropriate grade-level braille ruler and braille protractors.

	During Testing: A student uses a calculation device (e.g., four-function calculator, large key, or other adapted calculator), arithmetic table (including addition/subtraction and/or multiplication/division charts), and/or manipulatives (IEP or 504 plan must specify which device or manipulative) on the NON-CALCULATOR SECTIONS of the mathematics assessments. If a talking calculator is used, the student must use headphones or be tested in a separate setting. Important Guidelines for identifying students to receive this accommodation: IEP teams and 504 Plan Coordinators should carefully review the following guidelines before identifying students to receive this accommodation. If all guidelines are NOT met, and the student is given Calculation Device and Mathematics Tools without proper documentation, the student's assessment score may be invalidated and the score would not be counted in the overall assessment results (i.e., the student would be considered a "non-participant" for the mathematics assessment.) In making decisions whether to provide the student with this accommodation, IEP teams and 504 Plan Coordinators should consider whether the student has: • A disability that severely limits or prevents the student's ability to perform basic calculations (i.e., single-digit addition, subtraction, multiplication, or division), even after varied and repeated attempts to teach the student to do so. Before listing the accommodation in the student's IEP/504 plan, teams should also consider whether: • The student is unable to perform calculations without the use of a calculation device, arithmetic table, or manipulative during routine instruction. • The student's inability to perform mathematical calculations is documented in evaluation summaries from locally-administered diagnostic assessments. • The student receives ongoing, intensive instruction and/or interventions to learn to calculate without using a calculation device, in order to ensure that the student continues to learn basic calculation and fluency. For a student who receives this accommodation, no claims should be inferred regarding the student's ability to perform basic mathematical calculations without the use of a calculator.
Florida	Multiplication charts/tables may not be used.

Hawaii	**Designated Feature (Science):** 100s Number Table: A paper-based table listing numbers from 1–100 available on alohahsap.org for reference. Students with visual processing or spatial perception needs may find this support beneficial, as documented in their IEP or 504 Plan. A 100s Number Table may support students in performing math calculations on the (optional) Algebra 1 and 2 EOC or the Biology EOC Exams. (This same support is considered an accommodation for the SB math assessment.) Multiplication Table: A paper-based multiplication table containing numbers 1-12 (a 12 by 12 grid). This non-embedded accommodation is provided onsite as a standardized paper print copy. The multiplication table available on alohahsap.org should be used during state testing. For students with a documented and persistent calculation disability (i.e., dyscalculia). (This same support is considered an accommodation for the Smarter Balanced math assessment.) **Accommodation (Math):** 100s Number Table: A paper-based table listing numbers from 1–100. Upon verification, a link to print the 100s Number Table for use during state testing will be provided. Students with visual processing or spatial perception needs may find this beneficial, as documented in their IEP or 504 Plan. Multiplication Table: A paper-based multiplication table containing numbers 1-12 (a 12 by 12 grid). This non-embedded accommodation is provided onsite as a standardized paper print copy. Upon verification, a link to print the multiplication table for use during state testing will be provided. For students with a documented and persistent calculation disability (i.e., dyscalculia). Available for all items on the SB math test. Refer to the Hawai'i State Test Accommodation Guides for guidance on the use of the Multiplication Table State Test Accommodation.
Idaho	**Accommodation (Math):** 100s number table (for math items): A paper-based table listing numbers from 1–100 available from Smarter Balanced for reference. Download the 100s Number Table by Smarter Balanced. Students with visual processing or spatial perception needs may find this beneficial, as documented in their IEP or 504 Plan. Multiplication table (for math items): A paper-based multiplication table containing numbers 1–12 will be available from Smarter Balanced for reference. Download the Multiplication Table by Smarter Balanced. For students with a documented and persistent calculation disability (i.e., dyscalculia).

Illinois	**Accommodation (Math):** Calculation device and mathematics tools (on non-calculator sections of mathematics assessments): Before Testing: • Purpose: The purpose of the calculation device on the non-calculator sections accommodation is to provide access for students with a disability that *severely limits or prevents* their ability to perform basic calculations (i.e., student is unable to perform single-digit addition, subtraction, multiplication, or division). For these students, a calculation device may be used on the non-calculator AND calculator sections of the mathematics assessments. The IEP, ISP, or 504 plan must specify which device(s) or manipulatives. • Identification for SR/PNP: Student's SR/PNP must have Calculation Device and Mathematics Tools on non-calculator sections selected. Manipulatives may require state assessment office approval, depending on policies. • Materials: ◦ Hand-held calculator. ◦ Allowable calculators for the calculator accommodation on non-calculator sections: ▪ Grades 3-5: Four-function with square root and percentage functions. ▪ Grades 6-7: Four-function with square root and percentage functions. ▪ Grade 8: Scientific calculators (Student may also bring a four-function with square root and percentage functions in addition to grade-level calculator). ◦ Allowable mathematics tools include: ▪ Arithmetic tables (e.g., addition charts, subtraction charts, multiplication charts, division charts). ▪ Two-color chips (e.g., single-sided or double-sided). ▪ Counters and counting chips. ▪ Square tiles. ▪ Base 10 blocks. ▪ 100s chart. ◦ A student with a visual impairment may need other mathematics tools, such as a large print ruler (embedded ruler is designed in 18-point font), braille ruler, tactile compass, or braille protractor. Note that braille mathematics kits will include the appropriate grade-level braille ruler and braille protractors. During Testing: A student uses a calculation device (e.g., four-function calculator, large key, or other adapted calculator), arithmetic table (including addition/subtraction and/or multiplication/division charts), and/or manipulatives (IEP, ISP, or 504 plan must specify which

	device or manipulative) on the *NON-CALCULATOR SECTIONS* of the mathematics assessments. If a talking calculator is used, the student must use headphones or be tested in a separate setting. Important Guidelines for identifying students to receive this accommodation: IEP teams, ISP teams, and 504 Plan Coordinators should carefully review the following guidelines before identifying students to receive this accommodation. If all guidelines are NOT met, and the student is given Calculation Device and Mathematics Tools without proper documentation, the student's assessment score may be invalidated and the score would not be counted in the overall assessment results (i.e., the student would be considered a "non-participant" for the mathematics assessment.) In making decisions whether to provide the student with this accommodation, IEP teams, ISP teams, and 504 Plan Coordinators should consider whether the student has: • A disability that *severely limits or prevents* the student's ability to perform basic calculations (i.e., single-digit addition, subtraction, multiplication, or division), even after varied and repeated attempts to teach the student to do so. Before listing the accommodation in the student's IEP/ISP/504 plan, teams should also consider whether: • The student is unable to perform calculations without the use of a calculation device, arithmetic table, or manipulative during routine instruction. • The student's inability to perform mathematical calculations is documented in evaluation summaries from locally-administered diagnostic assessments. • The student receives ongoing, intensive instruction and/or interventions to learn to calculate without using a calculation device, in order to ensure that the student continues to learn basic calculation and fluency. For a student who receives this accommodation, no claims should be inferred regarding the student's ability to perform basic mathematical calculations without the use of a calculator.
Indiana	**Accommodation:** Hundreds Chart: A paper-based 1-100 chart may be used. Students with visual processing or spatial perception may benefit from this accommodation. This accommodation is available on all ILEARN and I AM Mathematics and Science assessments. Multiplication Table: For students with a documented math disability, a paper-based 9x9 multiplication table may be beneficial. The multiplication table is available on all ILEARN and I AM Mathematics and Science assessments.

Iowa	**Accommodation:** Multiplication table: A paper copy of a single digit (1–9) multiplication table is made available to the student. Students with a documented and persistent calculation disability (e.g., dyscalculia) may benefit from this accommodation.

Louisiana	**Accommodation (Math):** Calculation Device and Math Tools (for non-calculator sections of Mathematics Assessments): Students who have a calculator accommodation may be provided a handheld calculator during the non-calculator and calculator sessions of the test. Before Testing: Students must be provided a hand-held calculator. The Calculator Use accommodation must be bubbled in either the Special Education Student Accommodation(s) field or the Test Accommodation(s) for Students with Disabilities According to Section 504 field on the student's answer document. For all calculator sessions of the test, students will have access to the online calculator. Students may also be provided a hand-held calculator during the non-calculator sessions of the test. Before Testing: Students must be provided a hand-held calculator, if appropriate. The Calculator accommodation must be activated within the student's Accommodations tab within eDIRECT for the math content area. The purpose of the calculation device on the non-calculator sections accommodation is to provide access for students with a disability that severely limits or prevents their ability to perform basic calculations, including an inability to perform single-digit addition, subtraction, multiplication, or division). For these students, a calculation device may be used on the non-calculator AND calculator sections of the mathematics assessments. The IEP or 504 plan must specify which device(s) or manipulatives. The specified calculator must be aligned with the calculator policies. Manipulatives may require state assessment office approval. Manipulatives may not subvert the construct of the assessment. Calculator policies are located in the Math Assessment Structure section in the assessment library. Allowable calculators for the calculator accommodation on non-calculator sections: • Grades 3-5: Four-function with square root and percentage functions. • Grades 6-7: Four-function with square root and percentage functions. • Grade 8: Scientific calculators must not have graphing capabilities • High School: Graphing calculators with functionalities consistent with TI-84 or similar models. (Student may also bring a scientific calculator or a four-function with square root and percentage functions). Allowable mathematics tools include: • Arithmetic tables (e.g., addition charts, subtraction charts, multiplication charts, division charts). • Two-color chips (e.g., single-sided or double-sided) • Counters and counting chips • Square tiles • Base 10 blocks • 100s chart

	Those tools are only allowable for students who have a disability that severely limits or prevents their ability to perform basic calculations, including an inability to perform single-digit addition, subtraction, multiplication, or division. However, mathematics tools may not subvert the construct of the assessment. A visual impairment student may need other mathematics tools, such as a large print ruler (embedded LEAP 2025 ruler is designed in 18-point font), braille ruler, tactile compass, or braille protractor. Important Guidelines for identifying students to receive Calculation Device and Mathematics Tools accommodation: IEP teams and 504 Plan Coordinators should carefully review the following guidelines before identifying students to receive this accommodation. If all guidelines are NOT met, and the student is given Calculation Device and Mathematics Tools without proper documentation, the student's assessment score may be invalidated, and the score would not be counted in the overall assessment results. In making decisions whether to provide the student with this accommodation, IEP teams and 504 Plan Coordinators should consider whether the student has a disability that severely limits or prevents the student's ability to perform basic calculations, such as single-digit addition, subtraction, multiplication, or division, even after varied and repeated attempts to teach the student to do so. Before listing the accommodation in the student's IEP/504 plan, teams should also consider whether: • The student cannot perform calculations without using a calculation device, arithmetic table, or manipulative during routine instruction. • The student's inability to perform mathematical calculations is documented in evaluation summaries from locally administered diagnostic assessments. • The student receives ongoing, intensive instruction and/or interventions to learn to calculate without using a calculation device to ensure that they continue to learn basic calculation and fluency.
Maine	**Designated Feature (Math):** Mathematical Supports: This Designated Support is for students who need additional supports for math (e.g., abacus, number line, addition/multiplication charts, base-ten blocks, various types of counters, fraction tiles and pies without numerical labels, coins, clock with or without numbers shown on clock face; clock should not have gears, etc.).

Maryland	**Accommodation (Math):** Calculation Device and Mathematics Tools (on Calculator sections of the Mathematics Assessments): If a student's disability affects mathematics calculation, reasoning or access, a calculator or other mathematical tool may be needed. Some students may need to use mathematical tools such as a large print ruler, braille ruler, tactile compass, braille protractor. Sometimes other mathematical tools are needed by students with disabilities such as arithmetic tables, two-color chips, counters and counting chips, square tiles, base ten blocks, or 100s charts. Before Testing: Refer to the specific assessment's TAM or Accommodations Manual for a list of allowable calculation devices and mathematical tools. During Testing: A student uses a specific calculation device (e.g., large key, talking, or other adapted calculator) other than the embedded grade-level calculator on the calculator section of the mathematics assessment. If a talking calculator is used, the student must use headphones or be tested in a separate setting. The calculator cannot include functionality beyond the embedded grade-level calculator. Calculation Device and Mathematics Tools (on non-Calculator sections of the mathematics assessments): The purpose of a calculation device on the non-calculator sections of the Mathematics Assessment is to provide access for students with a disability that severely limits or prevents their ability to perform basic calculations (i.e., student is unable to perform single-digit addition, subtraction, multiplication, or division). For these students, a calculation device may be used on the non-calculator and calculator sections of the mathematics assessments. The IEP or 504 plan must specify which device(s) or manipulatives. Calculation devices assist with computation. It is important to determine whether the use of a calculation device is a matter of convenience or a necessary accommodation. It is important to know the goal of instruction and assessment before making decisions about the use of calculation devices. For example, if students are learning subtraction with regrouping, using a calculator would not give students an opportunity to show regrouping. On the other hand, if students are learning problem solving skills that include subtractions (e.g., bargain shopping for items with a better value), the use of a calculation device may be a valid accommodation. Before Testing: Refer to the specific assessment's TAM or Accommodations Manual for a list of allowable calculation devices and mathematical tools. During Testing: A student uses a specific calculation device (e.g., large key, talking, or other adapted calculator) or mathematical tool on the non-calculator section of the mathematics assessment. If a talking calculator is used, the student must use headphones or be tested in a separate setting. After Testing: If all guidelines are NOT met, and the student is given a Calculation device and Mathematics Tools without proper documentation, the student's assessment score may be invalidated and the score would not be counted in the overall assessment results (i.e., the student would be considered a "non-participant" for the mathematics assessment.

Michigan	**Accommodation (Math):** Use of OEAA's Multiplication Table (grade 4 and above only): Educators must use the Multiplication Table Guidance found at www.michigan.gov/mstep prior to requesting the multiplication table from the OEAA. The table can be requested through a request process in the OEAA Secure Site during the Multiplication Table Request Window. Please check the List of Important Dates for an updated timeline. Directions for making the request can be found in the M-STEP Test Administration Manual. The multiplication table is allowed for use by online or paper/pencil M-STEP mathematics test takers in grades 4–7. For some assessments, this paper-based single-digit (1-9) multiplication table will be available for students who have a documented need in their IEP or Section 504 Plan, such as a persistent calculation disability (such as dyscalculia).

Minnesota	**General Supports Available for All Students (Universal Feature):** Mathematics manipulatives, multiplications table, or an abacus: Since a calculator is allowed on all items in the grade 11 Mathematics MCA, the use of mathematics manipulatives, a multiplication table, or an abacus is considered a general support and not documented as an accommodation. • These supports must be used in an individual setting with the online test or paper test materials. • Mathematics manipulatives (like unifix cubes or base-10 blocks) can be the same color or different colors, but they must not be grouped or organized by the Test Monitor. • Manipulatives that have any numbers or writing on them are not allowed. The exceptions are the multiplication and hundreds tables provided by MDE. MDE does not produce a comprehensive list of allowable manipulatives; email mde.testing@state.mn.us for specific questions about providing manipulatives for statewide testing. • Paper versions of the multiplication and hundreds tables posted on the Mathematics Table Accommodations page of the PearsonAccess Next website (Preparing for Testing > Mathematics Accommodations) may be provided during testing. If students use the same table(s) for instruction and testing, Test Monitors must ensure that they do not have any additional writing on them before they are used for testing. If they do, a clean copy must be provided. The table(s) must be collected at the end of each test session and kept as a secure material, as students may have written parts of test items on them. Following test administration, the tables must be securely disposed of. Note: Mathematics manipulatives, multiplication and hundreds tables, and an abacus are accommodations for grades 3–8 (refer to Table 9 for additional information). **Accommodation (Math):** Mathematics manipulatives, multiplication and hundreds tables, and an abacus are considered accommodations for the grades 3–8 Mathematics MCA. • Mathematics manipulatives (like unifix cubes or base-10 blocks) can be the same color or different colors, but they must not be grouped or organized by the Test Monitor. • With the exception of MDE provided multiplication and hundreds tables, manipulatives that have any numbers or writing on them are not allowed. MDE does not produce a comprehensive list of allowable manipulatives; email mde.testing@state.mn.us for specific questions about providing manipulatives. • Paper versions of the multiplication and hundreds tables posted on PearsonAccess Next (Preparing for Testing > Mathematics Accommodations) may be provided during testing. If students use the same table(s) for instruction and testing, Test Monitors must ensure that they do not have any additional writing on them before testing. If they do contain

any writing, a clean copy must be provided. The tables must be collected at the end of each test session and kept as a secure material, as students may have written parts of test items on them. Following test administration, the tables must be securely disposed of.

The student must use a paper test book in an individual setting and only use the mathematics manipulatives, multiplication/hundreds tables, or an abacus on the segments where calculators are allowed. Note: This accommodation may be administered in a small group setting if all students require the same accommodation. There must be separation between students (such as, dividers or cubicles) to ensure students cannot view the materials being used by another student. The Test Monitor must be able to actively monitor all students in the small group.

Note that because the use of any of these accommodations requires students to move from an online test to a paper test, students lose the benefits of online testing, including access to interactive test items and an adaptive test tailored to their skill level. A 12-point regular print test book will be automatically shipped if this code is indicated in Pretest Editing by Jan. 20; after this date, the test book must be ordered as an additional order in PearsonAccess Next. District staff must enter all student responses online within the testing window. Refer to Entering Student Responses Online for MCA Paper Accommodations earlier in this chapter.

Notes for mathematics manipulatives, multiplication/hundreds tables, or an abacus:

- Since a calculator is allowed on all sections/segments of the grade 11 Mathematics MCA, the use of any of these is not indicated as an accommodation for grade 11 Mathematics MCA.
- If a student's IEP or 504 plan indicates the use of any of these (HC) and a 12-point regular print test book (12), only one code can be indicated in Pretest Editing; a 12-point test book is automatically sent when either code is indicated by Jan. 20.
- If a student's IEP or 504 plan indicates the use of any of these (HC) and script (MS), only the MS is indicated in Pretest Editing; a 12-point test book is automatically sent when the script is indicated by Jan. 20.
- If a student's IEP or 504 plan indicates the use of any of these (HC, MS, and 12), only the MS code is indicated in Pretest Editing; a 12-point test book is automatically sent when the script is indicated by Jan. 20.
- With all paper mathematics test books, it is automatically assumed that a handheld calculator will be needed.

Missouri	**Accommodation (Math):** Multiplication Table (GRADES 4-8) Students in grades 4-8 with this accommodation in their IEP/504 plan may have access to a single digit multiplication table. This accommodation must be chosen in the Portal under student accommodations prior to testing. Students in Grade 3 with this accommodation in their IEP/504 plan may have access to a single digit multiplication table. Please Note: Use of this accommodation will cause an invalidation for the Mathematics Assessment and the student will receive the Lowest Obtainable Scale Score (LOSS) and a performance level of Below Basic. This accommodation must be chosen in the Portal under student accommodations prior to testing.
Montana	**Accommodation (Math):** 100s Number Table: A paper-based table listing numbers from 1–100 available from Smarter Balanced for reference [available in the Resources section of the Montana Testing Portal]. Students with visual processing or spatial perception needs may find this beneficial, as documented in their IEP or 504 plan. Multiplication Table: A paper-based multiplication table containing 1-12 will be available from Smarter Balanced for reference. For students with a documented and persistent calculation disability (i.e., dyscalculia).
Nebraska	**Accommodation:** Math Supports: This accommodation is for students who need additional supports for math (e.g., abacus, calculation device, number line, addition/multiplication charts, base-ten blocks, various types of counters, fraction tiles and pies without numerical labels, coins, clock with or without numbers shown on clock face; clock should not have gears, etc.) Student's disability affects math calculation but not reasoning.
Nevada	**Accommodation (Math):** 100s number table: A paper-based table listing numbers from 1–100 available from Smarter Balanced for reference. Students with visual processing or spatial perception needs may find this beneficial, as documented in their IEP or 504 plan. Multiplication table: A paper-based multiplication table containing numbers 1–12 will be available from Smarter Balanced for reference. For students with a documented and persistent calculation disability (i.e., dyscalculia).

New Hampshire	**Accommodation (Math):** 100s Number Table: A paper-based table listing numbers from 1–100. Students with visual processing or spatial perception needs may find this beneficial, as documented in their IEP or 504 plan.

New Jersey	**Accommodation (Math):** Calculation devices and mathematics tools: Before Testing: • Purpose: The purpose of the calculation device on the non- calculator sections accommodation is to provide access for students with a disability that severely limits or prevents their ability to perform basic calculations (i.e., student is unable to perform single-digit addition, subtraction, multiplication, or division). For these students, a calculation device may be used on the non-calculator and calculator sections of the mathematics assessments. The IEP or 504 plan must specify which device(s) or manipulatives. • Identification for SR/PNP: Student's SR/PNP must have Calculation Device and Mathematics Tools on non-calculator sections selected. • Materials: ◦ Hand-held calculator. ◦ Allowable calculators for the calculator accommodation on non-calculator sections: ▪ Grades 3-5: Four-function with square root and percentage functions. ▪ Grades 6-7: Four-function with square root and percentage functions. ▪ Grade 8: Scientific calculators (Student may also bring a four-function with square root and percentage functions in addition to grade-level calculator). ▪ High School: Graphing calculators with functionalities consistent with TI-84 or similar models. (Student may also bring a scientific calculator or a four-function with square root and percentage functions). ◦ Allowable mathematics tools include: ▪ Arithmetic tables (e.g., addition charts, subtraction charts, multiplication charts, division charts). ▪ Two-color chips (e.g., single-sided or double-sided). ▪ Counters and counting chips. ▪ Square tiles. ▪ Base 10 blocks. ▪ 100s chart. ◦ A student with a visual impairment may need other mathematics tools, such as a large print ruler (embedded ruler is designed in 18-point font), braille ruler, tactile compass, or braille protractor. Note that braille mathematics kits will include the appropriate grade-level braille ruler and braille protractors. If a student requires mathematics tools outside of what is permitted for use, districts must complete and upload Appendix G: Unique Accommodations Request Form, via PAN, for review and approval.

	During Testing: A student uses a calculation device (e.g., four-function calculator, large key, or other adapted calculator), arithmetic table (including addition/subtraction and/or multiplication/division charts), and/or manipulatives (IEP or 504 plan must specify which device or manipulative) on the non-calculator sections of the mathematics assessments. If a talking calculator is used, the student must use headphones or be tested in a separate setting. Important Guidelines for identifying students to receive this accommodation: IEP teams and 504 Plan Coordinators should carefully review the following guidelines before identifying students to receive this accommodation. If all guidelines are not met, and the student is given Calculation Device and Mathematics Tools without proper documentation, the student's assessment score may be invalidated, and the score would not be counted in the overall assessment results (i.e., the student would be considered a "non-participant" for the mathematics assessment.) In making decisions whether to provide the student with this accommodation, IEP teams and 504 Plan Coordinators should consider whether the student has: • A disability that severely limits or prevents the student's ability to perform basic calculations (i.e., single-digit addition, subtraction, multiplication, or division), even after varied and repeated attempts to teach the student to do so. Before listing the accommodation in the student's IEP/504 plan, teams should also consider whether: • The student is unable to perform calculations without the use of a calculation device, arithmetic table, or manipulative during routine instruction. • The student's inability to perform mathematical calculations is documented in evaluation summaries from locally-administered diagnostic assessments. • The student receives ongoing, intensive instruction and/or interventions to learn to calculate without using a calculation device, in order to ensure that the student continues to learn basic calculation and fluency. For a student who receives this accommodation, no claims should be inferred regarding the student's ability to perform basic mathematical calculations without the use of a calculator.
North Carolina	**Accommodation (Science):** Use of mathematics tables

North Dakota	**Accommodation:** Multiplication table: A paper-based, single-digit (1-9) multiplication table is available to the student. This accommodation can benefit students with a documented and persistent calculation disability (i.e., dyscalculia).

Ohio	**Designated Feature (Math):** Calculator or fact charts – handheld: Students may use approved handheld calculators and reference sheets for calculator-allowable mathematics tests or parts of tests. Grade-level appropriate fact charts are permitted for calculator-allowable mathematics tests or parts of tests (addition, subtraction, multiplication, or division only). Additional calculator guidance is available on the Department's website and in Appendix C of the OST Test Administration Manual. Mathematics reference sheets: All students in grades 4 and above may use reference sheets on Ohio's State Tests in Mathematics. For paper-based testers, the math reference sheets will be included within the student test booklet. For online testers, the math reference sheet is embedded within the test delivery system. The test administrator may provide hard copies of reference sheets to students during online testing, but they need to print these at the local level. Mathematics reference sheets are available in English and Spanish on the ODE website and OST portal. When ending a test session, test administrators must collect the math reference sheets and shred any that contain student writing. **Accommodation (Math):** Calculator or fact charts on non-calculator mathematics test or part of test: The student uses a handheld or embedded calculator or fact chart (addition, subtraction, multiplication, or division only) on a non-calculator mathematics test or part of test. Both parts of grades 3 through 5 mathematics tests and part 1 of grades 6 and 7 mathematics tests are non-calculator tests. The accommodation would be permitted on test sections for which calculators are not allowed for other students. IEP teams and 504 Plan coordinators should carefully review the following guidelines for identifying students to receive this accommodation. This accommodation is for students with disabilities that severely limit or prevent their abilities to perform basic calculations (in other words, single-digit addition, subtraction, multiplication, or division). In making decisions whether to provide the student with this accommodation, IEP teams and 504 Plan coordinators should consider whether the student has a disability that severely limits or prevents the student's ability to perform basic calculations (in other words, single-digit addition, subtraction, multiplication, or division), even after varied and repeated attempts to teach the student to do so. Before documenting the accommodation in the student's IEP or 504 Plan, teams also should consider whether: • The student is unable to perform calculations without the use of a calculation device, arithmetic table, or manipulative during routine instruction; • The student's inability to perform mathematical calculations is documented in evaluation summaries from locally administered diagnostic assessments;

- The student receives ongoing, intensive instruction and/or interventions to learn to calculate without using a calculation device, to ensure that the student continues to learn basic calculation and fluency.

If students in grades 3-5 will use the embedded Desmos calculator within the Student Testing Site for a math test, the test administrator must turn on this accommodation when approving the student to test for part 1 and part 2. If students in grades 6 and 7 will use the embedded Desmos calculator within the Student Testing Site as an accommodation, the test administrator must turn on this accommodation when approving the student to test for part 1. An embedded calculator for non-calculator math tests or parts of math tests cannot be turned on ahead of testing in TIDE. Calculators are allowed on the grades 5 and 8 science tests and the biology end-of-course test for students with disabilities. However, there are no mathematical calculations on these Ohio science tests and a calculator should not be needed. An embedded calculator is not available for these tests. Calculator guidance is in the Test Administration Manual Appendix C.

Accommodation (Math, Science):

Mathematics tools: Mathematics tools only are allowed on math and science tests. The student uses these tools and manipulatives to assist mathematical problem solving. These manipulatives allow the flexibility of grouping, representing, or counting without numeric labels. Allowable mathematics tools as accommodations include:

- 100s chart
- Abacus/Rekenrek
- Algebra tiles
- Base 10 blocks
- Counters and counting chips
- Cubes
- Fraction tiles and pies without numerical labels
- Square tiles
- Two-colored chips

Tools that give students answers (for example, fraction tiles with numerical labels) or lead a student to use a specific strategy (for example, number lines) are not allowed. These types of tools can be effective for instruction and while students may create their own during testing as a strategy, they may not be provided to students on Ohio's state tests. For information about fact charts, see calculation device or fact charts on non-calculator mathematics test or part of test in this section. Information about rulers, angled-rulers, compasses and protractors is located in the non-embedded designated supports section of this manual. The Department will review and revise this list annually as needed.

Oklahoma	**Accommodation:** Use of aids or assistive technology (AT) devices or supports (e.g., color overlays, magnifier, pencil grips, auditory amplification devices, noise buffers, wedge for positioning, and multiplication table/chart, hundreds chart). If you are marking this accommodation, please also include it under Supplementary aids on the IEP. The specific device or support should be specified in the IEP/504 Plan, be routinely used by the student, and not alter the construct being measured.
Oregon	**Designated Feature (Science)/Accommodation (Math):** 100s number table: A paper-based table listing numbers from 1-100 is available under OSAS Resources ("Other") in the OSAS Portal. Students must have received instruction related to the appropriate use of a 100s table prior to a test administration, as no directions regarding how to use the table should be provided to the students. Recommendations for use: Students with visual processing or spatial perception needs may find this beneficial. Multiplication table: A paper-based 1-12 multiplication table is available on the OSAS portal. Recommendations for use: For students with a documented and persistent calculation disability (i.e., dyscalculia).
Pennsylvania	**Accommodation:** Calculators (Adaptive): Not permitted for the Grade 3 Mathematics Test. Not permitted for the non-calculator section of the Grade 4-8 Math PSSA. Calculators may be used for the calculator permitted sections of the Grades 4-8 Mathematics test and for all questions on the Algebra I Keystone Exam. Students may use calculators for the Science and Biology tests, including graphing calculators. However, calculators are not mandatory for the Science and Biology tests. All calculators must meet the guidelines in the Pennsylvania Calculator Policy. Some students with an IEP or 504 Plan may require the use of an adaptive calculator (e.g., large keypad, paper multiplication chart). These may only be used on portions of the test that allow a calculator. The use of calculator apps on devices (e.g., iPad, Chromebook, etc.) requires an assurance to PDE. See Unique Accommodation Assurance. Students using a paper multiplication chart must use the one provided in these guidelines. The online tool calculator can be installed for use during instruction using the link on the eDIRECT homepage through the Chrome browser and can be added as a shortcut to the student's device. The online tool calculator available is available as part of the test system. Calculator apps should only be accessed on portions of the test that allow a calculator. The online tool calculator is not available during the non-calculator sections of the test. A Unique Accommodation Assurance does not have to be submitted for using the online tool calculator. The online system is not interoperable with other assistive calculators.

Rhode Island	**Accessibility Feature (Universal Feature) (Science):** Mathematics tools: Student uses arithmetic tables for addition, subtraction, multiplication, and division, including an abacus or other manipulatives. **NOTE:** Formulas or formula sheets may not be provided. **Accommodation (Math):** Mathematics tools: Student uses arithmetic tables for addition, subtraction, multiplication, and division, including an abacus or other manipulatives. **NOTE:** Formulas or formula sheets may not be provided.
South Dakota	**Accommodation:** 100s Number Table: A paper-based table listing numbers from 1–100. A copy is available in the resource section. Students with visual processing or spatial perception needs may find this beneficial, as documented in their IEP or 504 plan. Multiplication Table: A paper-based multiplication table containing numbers 1-12. A copy is available in the resource section. For students with a documented and persistent calculation disability (i.e., dyscalculia).

Texas	**Designated Feature:** Calculation aids: This designated support provides an alternate method of computation for a student who is unable to effectively use paper-and-pencil methods. A student may use this designated support if the student: • routinely, independently, and effectively uses this designated support during classroom instruction and classroom testing; • receives Section 504 or special education services; and • meets at least one of the following requirements for the applicable grade. **Grades 3 and 4** • The student has a physical disability that prevents the student from independently writing the numbers required for computations and cannot effectively use other accessibility features to address this need (e.g., whiteboard, graph paper). • The student has a visual impairment that prevents him or her from seeing the numbers he or she has written during computations and cannot effectively use other accessibility features to address this need (e.g., magnifier). **Grades 5 through 7** • The student has a physical disability that prevents him or her from independently writing the numbers required for computations and cannot effectively use other accessibility features to address this need (e.g., whiteboard, graph paper). • The student has a visual impairment that prevents him or her from seeing the numbers he or she has written during computations and cannot effectively use other accessibility features to address this need (e.g., magnifier). • The student has a disability that affects mathematics calculations. Even after intensive instruction and remediation, the student is consistently unable to memorize basic addition, subtraction, multiplication, or division facts or perform the steps in an algorithm correctly when solving problems. This designated support may include **only** the following: • basic calculator available as an online embedded support on STAAR; • basic (i.e., four-function) handheld calculator or calculator application, including large-key or speech-output; • abacus or Cranmer modified abacus; • 0–9 addition grid without special numbers (e.g., even numbers) indicated; and

	• grade-appropriate multiplication grid without special numbers (e.g., perfect squares) indicated.
Utah	**Universal Feature (Math, Science)/Accommodation (Math):** All students are allowed to use the online calculation device when it is embedded during the allowed segments of a math assessment. Students in grades 7–12 who require a handheld calculation device or printable computation table can use that resource during the allowed segment of the math assessment. For students in grade 6, the use of a handheld calculation device or printable computation table is considered an accommodation and may be provided (based on need documented in the IEP) during the allowed segment of the assessment. For students in grades 3–5, the use of a handheld calculation device or printable computation table is not allowed during any segment of the math assessment. If provided, the test must be reported as modified, and the student will receive a score of non-proficient and be considered a non-participant for accountability. During instruction, it is important to determine whether the use of a calculation device or computation table is a matter of convenience or a necessary accommodation. It is also important to know the goal of instruction and assessment before making decisions about the use of calculation devices or computation tables. In some cases, calculators may be adapted with large keys or voice output (talking calculators). Examples of calculation devices are calculators, slide rules, and abacuses. Examples of computation tables are number lines and multiplication, division, addition, and subtraction charts. Math grades 3, 4, 5: Not allowed for any student. Math grade 6: Allowed when embedded within the assessment system. If a student is unable to access the online calculator due to the student's disability, an accommodation can be made to use a handheld calculator during the calculator segment of the assessment, based on need documented in the IEP. Math grade 7 and above: Allowed when embedded within the assessment system. All students may choose to use the embedded calculator or the handheld calculator they are most comfortable using. Science: Allowed for all students.
Vermont	**Accommodation:** 100s number table: Number tables are provided to students by their school based on those used by students for routine classroom instruction. A locally provided numbers table may be used. Multiplication table: Multiplication tables are provided to students by their school based on those used by students for routine classroom instruction. A locally provided paper-based single-digit multiplication table may be provided.

Virginia	**Accommodation (Math):** Calculators and/or Arithmetic Tools (Grades 3-7 Mathematics assessments only): Students with disabilities may use calculators and/or arithmetic tools on sections of the Grades 3- 7 Mathematics SOL tests and Growth Assessments in which a calculator is not allowed. Arithmetic machines and tables/charts are defined as tools that serve the same function as a simple calculator (e.g., four-function calculator). Examples include multiplication, addition, subtraction, or division charts, tables or machines. In order to use a calculator and/or arithmetic tool on items in which a calculator is not allowed, students with disabilities must be found eligible by their IEP Team or 504 Committee using the Calculator Accommodation Criteria Form. If the student is determined eligible, the IEP Team or 504 Committee must document the decision on the student's IEP or 504 Plan and maintain a copy of the completed and signed Calculator Accommodation Criteria Form in the student's educational record.
Washington	**Accommodation (Math):** 100s number table: A paper-based table listing numbers from 1–100 published by Smarter Balanced and available for printing on the WCAP portal. Students with visual processing or spatial perception needs may benefit from using the 100s number table accommodation. Multiplication table: A paper-based multiplication table containing numbers 1–12, available for printing on the WCAP portal. Students with a documented and persistent calculation disability (e.g., dyscalculia) may benefit from using the multiplication table accommodation.
West Virginia	**Accommodation (Math):** Multiplication table: A paper-based single digit (1-9) multiplication table will be available for reference. This accommodation is allowed for Grade 4 and above mathematics items. Students use a multiplication table (often it is stickers on their desks) during regular instruction and assessments. For students with a documented and persistent calculation disability (i.e., dyscalculia). 100s number table: A paper-based table listing numbers from 1–100 available for reference – available on the WVGSA portal. This is a non-embedded accommodation for Grades 4 and above mathematics items. Students who need graphic organizers or manipulatives for visual processing to complete mathematics tasks. Students with visual processing or spatial perception needs may find this beneficial, as documented in their IEP or 504 plan. The table can be printed from the portal for students requiring this accommodation. Use of any other 100s number tables is prohibited.

Wisconsin	**Accommodation:** Multiplication table (grades 4 and above): A paper-based single digit (1-9) multiplication table will be available for reference. For students in grades 4 and above with a documented and persistent calculation disability (i.e., dyscalculia). A student must have a documented disability/disorder that significantly impacts a person's ability to learn and perform math calculations as evidenced by documentation in the student's IEP. The *Multiplication Table* is available on the Forward Exam Accommodations and Supports webpage at http://dpi.wi.gov/assessment/forward/accommodations.

Footnotes

- **[1]**
  States' accessibility policies on math charts/tables were obtained through the examination and analysis of publicly available information, including accommodations manuals or other policy documents, on state department of education websites. The policies were gathered from states' websites between August and October 2023.The information in the tables from each state was coded based on information in the state policy.

- **[2]**
  Universal Features are available to all students as they access instructional or assessment content. *Designated Features* are available to any student as long as an educator (or team of educators, with student and parent input) indicates that they would be helpful given the student's characteristics and needs. *Accommodations* are changes in procedures or materials to ensure equitable access to instructional and assessment content and generate valid assessment results for students who need them. Accommodations are generally available to students for whom there is documentation on an individualized education program (IEP) or 504 accommodations plan; some states also have offered accommodations to English learners.

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